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Hi, I'm here as a state stem cell researcher to tell you about the success of the Stem Cell Initiative and to urge you to leave things as they are, and not delay funding for a year. I will start by briefly telling you about our research, funded by the initiative, then provide some reasons why a funding delay is a very bad idea at this point.

Thanks in large part to the initiative, I've watched the state become a world leader in stem cell research. Just 4 years ago, only 2 labs in the state were working with embryonic stem cells, including mine. Now there are scores, at Yale, UConn and Wesleyan, doing cutting edge research in state of the art facilities. The initiative has provided a stable source of funding that has helped us attract world-class investigators to Connecticut, including Haifin Lin, director of the Yale Stem Cell Institute. I am happy to say that the stem cell researchers of Connecticut meet regularly, and work well together in an atmosphere of collaboration and cooperation.

My group is interested in understanding how pluripotential embryonic stem cells, the smartest cells there are since they can become essentially any cell in the body, take their first step towards becoming neurons. We've learned a great deal about the signals involved, and can make use of this knowledge in designing therapies to treat neurodegenerative diseases. In collaboration with my colleagues at Wesleyan, Jan Naegele and Gloster Aaron, and facilities and collaborators at UConn Health Center, we have applied what we have learned to begin looking at transplantation therapies in mouse models of temporal lobe epilepsy. This direction was made possible with state funding. Thus far we have learned what makes embryonic stem cell-derived neural precursors migrate and function in the hippocampus, site of learning and memory in the brain, and a region damaged by seizures. Now we are hoping to provide mice with a stem-cell based therapy to inhibit recurring seizures.

So why would the program be damaged by a one year delay in funding?

1. It is detrimental to the momentum of the program. It slows down the progress of the research, prevents the initiation of new projects, sends a message that the program is not stable-this in turn makes the best researchers less likely to apply, leading to a decline in quality applications. In addition, it makes it more difficult to recruit and retain the best scientists.
2. The investment of the 40 million thus far has been leveraged into much more by the Universities, who have been willing to contribute significant funding, including key infrastructure projects, thanks to the steady flow of state funding. Their willingness to contribute will change with a decreased commitment from the state.
3. A large percent of the budgets of the grants have gone to job creation. At Wesleyan alone with only two funded grants, we have hired two technicians, one postdoctoral fellow, and supported three graduate students, so the initiative can be thought of as a stem cell stimulus package. The core

facilities have also provided key training for students, technicians, and other scientists within the state, producing highly trained workers able to take on the challenges of a changing workplace in biotech.

4. There has not been a large infusion of federal funds into stem cell research and many obstacles still exist with these funds, despite President Obama's lifting of some restrictions of cell line usage.

I know these are difficult times and there are many demands on the state budget, but I urge you to follow through with the commitment to the people of Connecticut to make this state a leader in this emerging field, a field that holds such promise for alleviating pain and suffering.